IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: QIU	))) Examiner: Not yet assigned
Serial No.: Not yet assigned	)) Group Art Unit: Not yet assigned
Filing Date: Filed herewith	)) Docket No.: P16581
For: METHODS AND APPARATUS FOR CHARACTERIZING SUBSCRIBER LOOP BASED ON ANALYSIS OF DSL HANDSHAKING SIGNALS AND FOR OPTIMIZATION OF DSL OPERATION	))))))

MS PATENT APPLICATION
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

UTILITY PATENT APPLICATION TRANSMITTAL
(Large Entity)

Sir:

Transmitted herewith for filing under 35 USC 111(a) and 37 CFR 1.53(b) is a new utility patent application for an invention entitled: **METHODS AND APPARATUS FOR CHARACTERIZING SUBSCRIBER LOOP BASED ON ANALYSIS OF DSL HANDSHAKING SIGNALS AND FOR OPTIMIZATION OF DSL OPERATION**

and invented by: **QIU**

Enclosed are:

1. ☑ Filing Fee as calculated and transmitted as described below
2. ☑ Specification having <u>23</u> pages and including the following:
    a. ☑ Descriptive Title of the Invention

b. ☐ Cross references to Related Applications (*if applicable*)

c. ☐ Statement Regarding Federally-sponsored Research/Development

d. ☐ Reference to Microfiche Appendix (*if applicable*)

e. ☑ Background of the Invention

f. ☐ Brief Summary of the Invention

g. ☑ Brief Description of the Drawings (*if drawings filed*)

h. ☑ Detailed Description

i. ☑ Claim(s) as Classified Below

j. ☑ Abstract of the Disclosure

3. ☑ Drawing(s) (*when necessary as prescribed by 35 USC 113*)

  a. ☑ Formal   Number of Sheets <u>10</u>

  b. ☐ Informal   Number of Sheets

4. ☑ Oath or Declaration

  a. ☑ Newly executed (*original or copy*)   ☐ Unexecuted

  b. ☐ Copy from a prior application (37 CFR 1.63(d))

  c. ☑ With Power of Attorney   ☐ Without Power of Attorney

  d. ☐ <u>DELETION OF INVENTOR(S)</u>
      Signed statement attached deleting inventor(s) named in the Prior Application,
      see 37. CFR 1.63(d)(2) and 1.33(b).

5. ☐ Incorporation By Reference (*usable if Box 4b is checked*)
    The entire disclosure of the prior application, from which a copy of the oath or
    declaration is supplied under Box 4b, is considered as being part of the disclosure of
    the accompanying application and is hereby incorporated by reference therein.

6. ☑ Assignment Papers (*cover sheet & documents(s)*)

7. ☐ 37 CFR 3.73(B) Statement (*when there is an assignee*)

8. ☐ English Translation Document (*if applicable*)

9. ☐ Information Disclosure Statement/PTO-1449   ☐ Copies of IDS Citations

10. ☐ Preliminary Amendment

11. ☑ Acknowledgement Postcard

12. ☑ Mailed Via

      ☐ First Class   ☑ Express Mail (*Specify Label No.*) **EV334067852US**

13. ☐ Certified Copy of Priority Document(s) (*if foreign priority is claimed*)

14. ☐ Request and Certification under 35 USC 122(b)(2)(B)(i) (*attach PTO/SB/35*)

15. ☑ Additional Enclosures: <u>Credit Card Payment Form</u>
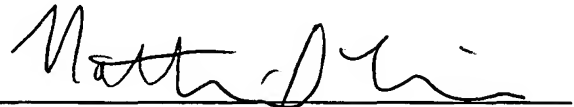
FEE CALCULATION

For	No. Filed	No. Allowed	No. Extra	Rate	Fee
Total Claims	47	- 20	27	$ 18.00	$ 486.00
Indep. Claims	10	- 3	7	$ 84.00	$ 588.00
Multiple Dependent Claims (If applicable, please add $ 280.00)					$ 0.00
				BASIC FEE	$ 750.00
OTHER FEE (specify purpose):					$ 0.00
				TOTAL FILING FEE	**$1,824.00**

Credit Card Authorization for **$1,824.00** and **$40.00** are enclosed.

The Commissioner is hereby authorized to charge and credit Deposit Account No. <u>50-1852</u> as described below. A duplicate copy of this sheet is enclosed.

☑ Credit any overpayment.
☑ Charge any additional fees required under 37 CFR 1.16 and 1.17.

Respectfully submitted,

<u>August 20, 2003</u>
Date

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RECEIVED DATE ___08-21-03___

TOTAL COUNT ___20___

non-fee
☐

BATCH No.
2

___ DESIGN

___ PROV

_✓_ UTILITY

SERIAL No. RANGE

FROM _10.644.916_ TO _10.644.235_

PRE-DOC PREP _____ DATE _08-21-03_

RAM _____Daniel_____ DATE _08-21-05_

PRE-INDEX_____ DATE _____

INITIALIZATION _____ DATE _____

DATA ENTRY_____ DATE _____

QUALITY ASSURANCE _____ DATE _____

SCAN _____ DATE _____

IMAGE Q. A. _____ DATE _____

BOXING _____ DATE _____